

AMENDMENTS TO THE SPECIFICATION:

Page 1, immediately following the title, please insert the following:

This is the U.S. national phase of International Application No.

PCT/EP03/11600 filed October 20, 2003, the entire disclosure of which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

The paragraph beginning on page 1, line 4 has been changed as follows:

The invention relates to a cannula for treatment of the human or animal body with an abrasive flow medium. Thereby, there is involved preferably a gaseous flow medium, in particular air or compressed air, with which abrasive particles, e.g. an abrasive powder, ~~is~~ are mixed. The cannula ~~consists of~~ includes a cannula foot, a cannula shaft extending therefrom forwardly, and an outlet nozzle which is arranged in the forward end region of the cannula shaft and directed to the side. Through this, the treatment site arranged before the outlet nozzle is only slightly obscured by the cannula itself, and the person ~~carry~~ carrying out the treatment has good access and a good view of the treatment site, even when this is located in a body cavity of the body, such as e.g. in the mouth of a patient.

The paragraphs beginning on page 3, line 6 have been changed as follows:

The object of the present invention is, with a cannula of the kind concerned, to increase its working life. This object is achieved by ~~means of the features of claim 1 or 30~~ a cannula having a cannula shaft which is substantially straight, a sideways directed outlet nozzle in a forward end region of the cannula shaft, a first channel section of a delivery line extending axially forward in the cannula shaft, from which

there extends a second channel section sideways to the outlet nozzle, wherein in the region of the apex of an angle included by the channel sections there is arranged an impact wall lying axially opposite to the first channel section, and/or the channel sections are surrounded by a protective wall at least over a part of their length, and wherein the impact wall and/or the protective wall are of a material that is more wear resistant or harder than the material of the cannula shaft.

~~In the case of the configuration according to claim 1~~ this embodiment of the invention, the channels have ~~in accordance with the invention~~, in the region of the apex, lying axially opposite the first delivery channel, an impact wall having an impact surface of a material which is more wear resistant than the material of the cannula shaft. This leads to an extension of the working life. Preferably, the material is, with regard to the abrasively effective particles, wear resistant such that no or only slight abrasion or wear takes place in functional operation. However, even when the material is only so wear resistant that the wear is reduced, the desired goal is attained of increasing the working life.

The paragraph beginning on page 4, line 12 has been changed as follows:

~~In the case of the configuration according to claim 30~~ another embodiment there is arranged in the end region of the first channel section a channel widening. This channel widening forms a relaxation chamber in which, in operation of the cannula, the pressure and the flow velocity are reduced. Consequently, also the mass and abrasiveness of the abrasive particles is reduced, through which the wear at the end wall region laying opposite the first channel section is reduced. In order to attain in the transition region between the channel widening and the second channel section a smooth and laminar flow, it is advantageous to provide in this transition region a

convergent, in particular hollow cone shaped transition to the second channel section. ~~Though~~ Through this, not only is the flow improved, but also the abrasiveness of the particles in the second channel section is reduced and thus wear in the second channel section is reduced.

The paragraphs beginning on page 5, line 12 have been changed as follows:

The invention thus further has the object, with another embodiment of a cannula ~~of the kind indicated in the preamble of claim 2~~, to improve the compatibility with the body to be treated.

~~This object is achieved by means of the features of claim 2. Advantageous developments of the invention are indicated in the associated subclaims.~~

In the case of ~~these configurations in accordance with the invention~~ this embodiment the cannula shaft is of a ceramic material. Through this the cannula is given not only an attractive and high-value exterior, but it is also of good compatibility with regard to the body, in particular with regard to different temperatures between the body and cannula. Since the cannula in accordance with the invention is a poor heat conductor, even in the case of relatively great temperature differences, no significant incompatibility arises.

The paragraphs beginning on page 7, line 1 have been changed as follows:

Thereby, naturally, a simple and economically producible construction should ~~to~~ be ensured.

~~The~~ In another embodiment, the invention ~~thus has further the object of so~~ configuring provides a cannula ~~of the kind indicated in the preamble of claim 16, that~~ having a simple and small structure ~~is attained~~.

~~This object is achieved by means of the features of claim 16. Advantageous developments of the invention are indicated in the associated subclaims.~~

With the configuration according to claim 16 this embodiment, due to the there is a coaxial arrangement of at least one section of the second delivery line, ~~there can be attained~~ so as to attain not only a compact structure but also a simple structure, since due to the straight extension of the channel sleeve a simple prefabricated channel sleeve can be used and mounted by means of pushing in.

The paragraphs beginning on page 8, line 8 have been changed as follows:

The In another embodiment, the invention ~~thus further has the object of improving~~ improves the hygiene of a cannula ~~of the kind concerned. Further, while avoiding or reducing~~ affecting of the water delivery line with contaminants and/or pathogens ~~should be avoided or reduced.~~

~~This object is achieved by means of the features of claim 19.~~

With this ~~configuration in accordance with~~ embodiment of the invention a return flow blocking valve is arranged in the water delivery line of the cannula. This is advantageous for several reasons. On the one hand such a blocking valve prevents the return transport of contaminants and/or pathogens, so that the hygiene is improved.

The paragraphs beginning on page 9, line 6 have been changed as follows:

The invention thus further has the object of ~~so configuring~~ providing a cannula ~~of the kind indicated in the preamble of claim 24~~ that it can be produced or also assembled more simply and with less outlay.

~~This object is achieved by means of the features of claim 24. Advantageous developments of the invention are indicated in the associated subclaims.~~

In the case of the cannula in accordance with ~~the invention according to claim 24~~ this embodiment, the cannula shaft is of two longitudinal sections which are connected with one another by means of a connecting device in the form of a plug-in connection or screw connection. Through this it is possible to carry out the production or prefabrication or also installation measures on two cannula sections separated from one another. Thereby, the accessibility to the cannula sections is very much simplified in particular for internal production or installation measures, so that these measures can be carried out more simply, more quickly, and more economically.

The paragraphs beginning on page 11, line 9 have been changed as follows:

The invention thus has the further object of extending the working life of a handpiece of the kind concerned. ~~This object is achieved by means of the features of independent claim 24.~~

In the case of ~~the configuration in accordance with the invention according to claim 24~~ this embodiment at least the inner wall of the supply container and/or the channel sleeve is or are of a plastic material which is hard and or can be worn having a hardness (indentation hardness) of at least about 150 N/mm² in particular about 180 to 220 N/mm² in accordance with European standard EN ISO 2039-1. Through this it is attained in a surprising manner that the particles cannot exercise their abrasive effect on the wall surface, or exercise it only to a reduce extent. For the inner wall of the supply container and/or of the channel sleeve there is thus needed no hard metal, which is complex and expensive. Thus, this configuration in accordance with the invention also leads to a more simple and economical configuration, wherein plastic

can be employed, which is economically suitable in particular as an injection molded part and for difficult conformations.

~~Further subclaims contain features which likewise lead to~~ The invention also provides simple and economically producible manners of construction, ensure good functioning and make possible a simple and rapid installation or de-installation of releasable or also exchangeable components.

On page 12, line 4 please insert a heading as follows:

BRIEF DESCRIPTION OF THE DRAWINGS

On page 12, line 29 please insert a heading as follows:

DETAILED DESCRIPTION